Application No. 10/723,439 -- Winchell, inventor Examiner: Henley III, R.J.; Art Unit: 1614

Amendment No. 2 submitted in reply to Office Action of August 23, 2007

## Amendments to the Claims:

The following is a complete list of claims indicating the changes incorporated by the present amendment and replacing all prior versions of the claims. Any claims canceled herein and all deletions made in claims that are not canceled herein are done so without prejudice to being re-instituted at a later date in this or a related application.

## WHAT IS CLAIMED IS:

## Claim 1 (canceled)

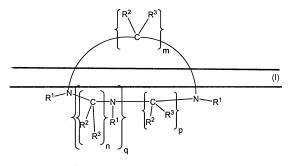
Claim 2 (currently amended): A pharmaceutical composition comprising (a) a complex of (i) a cyclic polyaza chelator having complexing affinity for first transition series elements and (ii) a cation of a member selected from the group consisting of calcium and magnesium and (b) a pharmacologically acceptable carrier, said cyclic polyaza chelator having the formula

$$\begin{array}{c} \text{HO} \stackrel{\text{II}}{\text{P}} - (\text{CH}_2)_r - \text{CH}_2 \\ \text{HO} \\ \\ \text{II} \\ \\ \text{CH}_2 \\ \\ \text{OH} \\ \\ \text{$$

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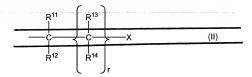
wherein:

m, n, and p are each independently 2 or 3;

a is 1 or 2:

R2-and R2-are each independently selected from the group consisting of H, alkyl, alkenyl, aryl, arylalkyl, alkoxy, alkylthio, alkonoxy, alkonylthio, aryloxy, arylthio, alkyl interrupted by oxa, alkenyl interrupted by oxa, alkyl interrupted by thia, alkenyl interrupted by thia, aryloxyalkyl, alkoxyaryl, aminoalkyl, aminoalkonyl, aminoaryl, aminoarylalkyl, hydroxyalkyl, hydroxyalkenyl, hydroxyaryl, hydroxyarylalkyl, and halogen-substituted versions thereof;

R+is



wherein:

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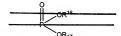
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R<sup>++</sup>, R<sup>+2</sup>, and R<sup>+2</sup> are each independently-selected from the group-consisting of H, alkyl, alkenyl, aryl, arylalkyl, alkoxy, alkylthio, alkenoxy, alkenylthio, aryloxy, arylthio, alkyl interrupted by oxa, alkenyl-interrupted by oxa, alkyl-interrupted by thia, alkenyl-interrupted by thia, aryloxyalkyl, alkoxyaryl, aminoalkyl, aminoalkenyl, aminoaryl, aminoarylalkyl, hydroxyalkyl, hydroxyalkyl, hydroxyalkyl, hydroxyalkyl, and halocen-substituted versions thereof:

R<sup>14</sup>-is a member selected from the group consisting of H, hydroxy, amino, alkyl, alkyl interrupted by oxa, alkoxy, aryl, aryloxyalkyl, alkoxyaryl, alkoxyaryl, and halogen substituted versions thereof;

r is zero or 1; and

X-io



wherein, R<sup>46</sup> and R<sup>47</sup> are each independently-selected from the group consisting of H, alkyl and aryl, or taken together form a ring structure;

and wherein, optionally, any two of R<sup>\*</sup>, R<sup>a</sup>, and R<sup>a</sup> are combined to form a ring structure; and dimers of Formula I, said dimers being formed by the covalent attachment of two complexing agents of Formula I through a linking group having from 1 to 6 carbon atoms; and physiological salts thereof.

Claims 3-4 (canceled)

Claim 5 (original): The pharmaceutical composition of claim 2 wherein said cation is calcium.

Claims 6-24 (canceled)

Claim 25 (currently amended): The pharmaceutical composition of claim 2 wherein  $\underline{r}$  is zero  $\mathbb{R}^{\frac{1}{2}}$  is dihydroxyphosphorylmethyl,  $\mathbb{R}^{\frac{3}{2}}$  is  $H_1$ ,  $H_2$  is  $H_3$  is  $H_4$  in it  $H_4$  in it  $H_4$  in  $H_4$  in it  $H_4$  in  $H_4$  in it  $H_4$  in it  $H_4$  in it  $H_4$  in it  $H_4$  in  $H_4$  in

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Claim 26 (original): The pharmaceutical composition of claim 25 in which said cation is calcium.

## Claims 27-32 (canceled)

Claim 33 (previously presented): A method for mitigating ischemia or ischemia-reperfusion injury in a patient that has undergone cardiopulmonary bypass, said method comprising administering to said patient an effective amount of a pharmaceutical composition of claim 2.

Claim 34 (previously presented): A method for mitigating ischemia or ischemia-reperfusion injury in a patient that has undergone vascular surgery, said method comprising administering to said patient an effective amount of a pharmaceutical composition of claim 2.

Claim 35 (previously presented): A method for mitigating ischemia or ischemia-reperfusion injury in transplanted tissue in a patient that has undergone tissue transplant, said method comprising administering to said patient an effective amount of a pharmaceutical composition of claim 2.

Claim 36 (original): A method for providing neuroprotection or cardioprotection in a patient, said method comprising administering to said patient an effective amount of a pharmaceutical composition of claim 2.

Claim 37 (original): A method for enhancing the biological activity of a cyclic polyaza chelator having complexing affinity for first transition series elements, said method comprising administering said chelator as a pharmaceutical composition of claim 2.

Claim 38 (original): A method for mitigating ischemia or ischemia-reperfusion injury in a patient, said method comprising administering to said patient an effective amount of a pharmaceutical composition of claim 2.

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Claim 39 (original): A method for mitigating damage to the central nervous system of a patient suffering from ischemic stroke, seizure or trauma, said method comprising administering to said patient an effective amount of a pharmaceutical composition of claim 2.

Claim 40 (original): A method for mitigating damage to the heart of a patient suffering a heart attack or arrhythmia, said method comprising administering to said patient an effective amount of a pharmaceutical composition of claim 2.

Claims 41-50 (canceled)